

ABSTRACT

5 Probe sets for the multiplexed detection of known, selected nucleotide target sequences  
 are provided. Detection involves the release of identifying tags as a consequence of target  
 recognition. The probe sets include electrophoretic tag probes or "e-tag probes", comprising a  
 detection region and a mobility-defining region called the mobility modifier, both linked to a  
 target-binding moiety. The target-binding moiety of the e-tag probes hybridizes to  
 complementary target sequences followed by nuclease cleavage of the e-tag probes and release  
 10 of detectable e-tags or e-tag reporters. The mixture is exposed to a capture agent which binds  
 uncleaved and/or partially cleaved e-tag probes, followed by electrophoretic separation. In a  
 multiplexed assay, different released e-tag reporters may be separated and detected providing  
 for target identification.

15